

Notice of Allowability

Application No.

10/725,179

Examiner

Christopher E. Mahoney

Applicant(s)

AGOSTINELLI, JOHN A.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed May 9, 2005.
2. ☒ The allowed claim(s) is/are 1-45.
3. ☒ The drawings filed on 15 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephen Shaw on July 12, 2005.

Claims 1, 11 and 16 have been amended as follows:

1. (Currently Amended) A projection apparatus for forming an image frame on a display surface, wherein the image frame comprises a two-dimensional array of pixels, the apparatus comprising:

(a) a projector ~~for directing~~ that directs an image-bearing beam toward the display surface, comprising:

(i) a laser light source;

(ii) an image modulator ~~for modulating~~ that modulates said laser light source to form said image-bearing beam, according to image data;

(iii) projection optics ~~for projecting~~ that project said image-bearing beam toward the display surface to form the image frame;

(b) a camera ~~for obtaining~~ that obtains a sensed pixel array by sensing the two-dimensional array of pixels of the image frame formed on the display surface by said image-bearing beam;

(c) a control logic processor ~~for comparing~~ that compares said sensed pixel array with corresponding said image data for the image frame to identify any portion of said image-bearing beam that is obstructed from the display surface and for disabling pixels within said obstructed portion of said image-bearing beam for a plurality of subsequent image frames.

11. (Currently Amended) A projection apparatus for forming an image frame on a display surface, wherein the image frame comprises a two-dimensional array of pixels, the apparatus comprising:

(a) a projector ~~for directing~~ that directs an image-bearing beam toward the display surface, comprising:

(i) a laser light source;

(ii) an image modulator ~~for modulating~~ that modulates said laser light source to form said image-bearing beam as a line of pixels, according to image data;

(iii) projection optics ~~for projecting~~ that project said image-bearing beam as a series of scanned lines toward the display surface to form the image frame;

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(b) a camera ~~for obtaining~~ that obtains a sensed pixel array by sensing the two-dimensional array of pixels of the image frame formed on the display surface by said image-bearing beam;

(c) a scan control logic processor ~~for comparing~~ that compares said sensed pixel array with corresponding said image data for the image frame to identify any portion of said image-bearing beam that is obstructed from the display surface and for disabling pixels within at least said obstructed portion of said image-bearing beam for a plurality of subsequent image frames.

16. (Currently Amended) A projection apparatus for forming an image frame on a display surface, wherein the image frame comprises a two-dimensional array of pixels, the apparatus comprising:

(a) a projector ~~for directing~~ that directs a multicolor image-bearing beam toward the display surface, comprising:

(i) an image generation system comprising:

(1) a plurality of imaging laser light sources, each imaging laser light source having an imaging wavelength; and,

(2) for each said imaging laser light source, an image modulator ~~for modulating~~ that modulates light from said imaging laser light source to form a monochrome image-bearing beam according to image data;

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(ii) color combining optics ~~for combining~~ that combine said monochrome image-bearing beam from each imaging laser light source to form a multicolor image-bearing beam;

(iii) projection optics ~~for projecting~~ that project said multicolor image-bearing beam toward the display surface to form the image frame;

(b) a camera ~~for sensing~~ that senses an obstruction between said projector and the display surface by detecting reflected ambient light from the obstruction, wherein the camera includes filters to distinguish the ambient light from projected light; and,

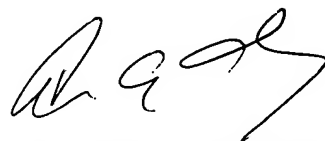
(c) a control logic processor for defining an obstructed area of the display surface according to said obstruction sensed by said camera and for disabling corresponding said image data to each said image modulator, blanking the multicolor image beam over said obstructed area thereby.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Mahoney whose telephone number is (571) 272-2122. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'C. E. Mahoney', is positioned above the printed name.

Christopher E Mahoney
Primary Examiner
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